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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/687,696	10/20/2003	Toru Nakao	Q77951	2831

7590 06/22/2005

SUGHRUE MION,PLLC
2100 Pennsylvania Avenue, N.W.
Washington, DC 20037-3213

EXAMINER	
MERCEDES, DISMERY E	
ART UNIT	PAPER NUMBER
2651	

DATE MAILED: 06/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/687,696	NAKAO, TORU	
	Examiner	Art Unit	
	Dismery E. Mercedes	2651	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 April 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *20 October 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1 and 2 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 16-19 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The limitations "the head controlling unit vibrates the reproducing head towards upward and downward direction alternately in a width-wise direction of the tape" and "the controlling unit vibrates the reproducing head alternatively as the tape is conveyed in a single direction" are not disclosed in the specification as filed.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 1,5,13 and 14 are rejected under 35 U.S.C. 103(as) as being unpatentable over Applicant's Admitted Prior Art, hereinafter, AAPA (KK (JP 2001-266321), in view of Tomita et al. (US 4,327,384).

As to Claim 1, AAPA discloses a servo signal inspecting apparatus to inspect a recorded state of a servo signal with a reproducing head with a smaller width than a width of a servo track (¶0013, lines 4-5), the apparatus comprising: a magnetic tape driving unit running a magnetic tape (¶0013, lines 3-4); a reproducing head inspecting a servo signal recorded on said magnetic tape (¶0024, line 4). AAPA fails to particularly disclose controlling said reproducing head so as to vibrate in a range of width of said servo track in a width direction of said magnetic tape.

However, Tomita et al. is relied upon for disclosing such (col.4, lines 4-10 & col.5, lines 1-12). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the apparatus as disclosed by AAPA, by implementing the oscillator and piezoelectric element to provide lateral vibration, the motivation being because it would provide the apparatus disclosed by AAPA with the enhanced capability of realizing tracking servo loop which provides small amount of wobbling, thus reducing jitter (col.6, lines 53-55 of Tomita et al.).

As to Claim 5, AAPA further discloses an analysis unit analyzing whether or not defects exist in servo signals based on signals read with a reproducing head (abstract (solution, lines 5-8)).

As to Claim 9, AAPA further discloses an analysis unit memorizes data obtained from normally recorded servo signals as standard data in advance and compares the standard data with data in inspection, thereby finding defects of servo signals (¶0027-0029).

As to method claim 13, is drawn to the method of using the corresponding apparatus claimed in claim 1, and is therefore rejected for the same reasons set forth in claim 1, supra.

As to method claim 14, is drawn to the method of using the corresponding apparatus claimed in claim 5, and is therefore rejected for the same reasons set forth in claim 5, supra.

2. Claims 2, 6,10,15 are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA in view of Tomita et al., further in view Schwarz et al. (US 5,946,156).

As to Claim 2, AAPA discloses a reproducing head is made to vibrate in a range of width of said servo track by said head controlling unit (¶0024, lines 9-10).

AAPA fails to particularly disclose a plurality of said reproducing heads are provided at a predetermined interval for one said servo track.

However, Schwarz et al. is relied upon for disclosing such (col.2, lines 17-26). Therefore, it would have been obvious to one or ordinary skill in the art at the time of the invention to modify upon the apparatus disclosed by AAPA and Tomita et al., by implementing the plurality of reproducing heads for one servo track, the motivation being because it would provide the apparatus disclosed by AAPA and Tomita with the enhanced capability of identifying position error signal to provide for servo control.

As to Claim 6, in the obvious combination, AAPA further discloses an analysis unit analyzing whether or not defects exist in servo signals based on signals read with a reproducing head (abstract (solution, lines 5-8)).

As to Claim 10, AAPA further discloses an analysis unit memorizes data obtained from normally recorded servo signals as standard data in advance and compares the standard data with data in inspection, thereby finding defects of servo signals (¶0027-0029).

As to method claim 15, is drawn to the method of using the corresponding apparatus claimed in claim 10, and is therefore rejected for the same reasons set forth in claim 10, supra.

3. Claims 3,7,11 are rejected as being unpatentable over AAPA in view of Tomita et al., further in view of Richard et al. (US 4,426,047).

As to Claim 3, AAPA in view of Tomita et al. discloses the servo signal apparatus as claimed in base claim 1, but fails to particularly disclose a head guide assembly guiding a magnetic tape in a floated state off a guide surface by blowing air from said guide surface with which a surface of said magnetic tape is guided.

However, Richard et al. discloses such on (col.4, lines 56-64). Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to implement Richard's guide bearings in the apparatus disclosed by AAPA, Tomita et al., the motivation being because it would provide the apparatus disclosed by AAPA and Tomita et al. with the enhanced capability of reading and writing magnetic transitions to and from the magnetic tape (col.4, lines 63-64 of Richard et al.).

As to Claim 7, in the obvious combination, AAPA further discloses an analysis unit analyzing whether or not defects exist in servo signals based on signals read with a reproducing head (abstract (solution, lines 5-8)).

As to Claim 11, in the obvious combination, AAPA further discloses an analysis unit memorizes data obtained from normally recorded servo signals as standard data in advance and compares the standard data with data in inspection, thereby finding defects of servo signals (¶0027-0029).

4. Claims 4,8,12 are rejected as being unpatentable over AAPA in view of Tomita et al., further in view Schwarz et al., further in view of Richard et al. (US 4,426,047).

As to Claim 4, the combination of AAPA in view of Tomita et al., further in view Schwarz et al. discloses the servo signal apparatus as claimed in claim 2, but fails to particularly disclose a head guide assembly guiding a magnetic tape in a floated state off a guide surface by blowing air from said guide surface with which a surface of said magnetic tape is guided.

However, Richard et al. discloses such on (col.4, lines 56-64). Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to implement Richard's guide bearings in the apparatus disclosed by AAPA, Tomita et al. and Schwarz et al., the motivation being because it would provide such apparatus with the enhanced capability of reading and writing magnetic transitions to and from the magnetic tape (col.4, lines 63-64 of Richard et al.).

As to Claim 8, in the obvious combination, AAPA further discloses an analysis unit analyzing whether or not defects exist in servo signals based on signals read with a reproducing head (abstract (solution, lines 5-8)).

As to Claim 12, in the obvious combination, AAPA further discloses an analysis unit memorizes data obtained from normally recorded servo signals as standard data in advance and compares the standard data with data in inspection, thereby finding defects of servo signals (¶0027-0029).

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Nakao (US 6,906,887 B2), Yanagisawa (US 5,031,055), Tanaka et al. (US 6,292,323 B1), Koski (US 6,754,026 B1), Leonhardt (US 5,696,755), Ravizza (US 4,318,142).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dismery E. Mercedes whose telephone number is 571-272-7558. The examiner can normally be reached on Monday - Friday, from 9:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached on 571-272-7843. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dismery E Mercedes
Examiner
Art Unit 2651

DM

DAVID HUDSPETH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600